

## VII. Sparse Vegetation

### **VII.C.2.N.a.2. CAKILE EDENTULA SPARSE VEGETATION ALLIANCE**

#### Sea-rocket Sparse Vegetation Alliance

Physiognomic Class	Sparse Vegetation (VII.)
Physiognomic Subclass	Unconsolidated material sparse vegetation (VII.C.)
Physiognomic Group	Temperate or sub-polar grassland with a sparse shrub layer (VII.C.2.)
Physiognomic Subgroup	Natural/Semi-natural (VII.C.2.N.)
Formation	Sand flats (VII.C.2.N.a.)

#### **Alliance CAKILE EDENTULA SPARSE VEGETATION ALLIANCE (VII.C.2.N.a.2.)**

#### **Cakile edentula ssp. edentula - Chamaesyce polygonifolia Sparse Vegetation**

Sea-rocket - Northern Seaside Spurge Sparse Vegetation

*North Atlantic Upper Ocean Beach*

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CLASSIFICATION CONFIDENCE LEVEL: 2

USFS WETLAND SYSTEM:

RANGE:

#### ***Fire Island National Seashore***

This association occurs at the wrack line on bayside beaches, and at the foot of the foredune on the oceanside of Fire Island.

#### ***Globally***

This community occurs on the coast from southern Maine to Cape Hatteras, North Carolina.

ENVIRONMENTAL SETTING:

#### ***Fire Island National Seashore***

This community occurs on the seaward side of primary dunes just above high tide mark.

#### ***Globally***

This community occurs on maritime beaches that are subject to irregular tidal flooding, generally spring or storm tides in maritime settings. Vegetation cover is variable, depending on the amount of exposure to wave and wind action, but on average is sparse. Ninety-five to ninety-nine percent of the substrate is typically unvegetated sand.

MOST ABUNDANT SPECIES:

#### ***Fire Island National Seashore***

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Cakile edentula</i> ssp. <i>edentula</i> , <i>Polygonum glaucum</i> , <i>Chamaesyce polygonifolia</i>

#### ***Globally***

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Cakile edentula</i> ssp. <i>edentula</i>

CHARACTERISTIC SPECIES:

#### ***Fire Island National Seashore***

*Cakile edentula* ssp. *edentula*, *Polygonum glaucum*, *Chamaesyce polygonifolia*

#### ***Globally***

*Cakile edentula* ssp. *edentula*, *Chamaesyce polygonifolia*, *Salsola caroliniana*

VEGETATION DESCRIPTION:

#### ***Fire Island National Seashore***

**USGS-NPS Vegetation Mapping Program**  
**Fire Island National Seashore**

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This association is a sparsely vegetated community occurring on the transitional area between the foredune and beach. Species present include *Cakile edentula* ssp. *edentula*, *Polygonum glaucum*, *Chamaesyce polygonifolia*, and *Ammophila breviligulata*, but none occur at greater than 3% cover.

This association also occurs along the bayside wrack line, where Rozsa and Dowhan (1989) list the following associates as either common or frequent: *Xanthium strumarium*, *Atriplex arenaria*, *Atriplex hastata*, *Bassia hirsuta*, *Chenopodium album*, *Salsola kali*, *Sueda linearis*, with *Brassica nigra* and *Lepidium virginicum* occurring occasionally.

**Globally**

This community is sparsely vegetated on average, so no species can be considered dominant. Annual or biennial species more or less restricted to beach habitats are characteristic of this community, including *Cakile edentula* ssp. *edentula*, as well as *Salsola caroliniana*, *Chamaesyce polygonifolia*, *Honckenya peploides*, *Cenchrus tribuloides*, *Amaranthus retroflexus*, *Chenopodium album*, *Erechtites hieraciifolia*, and *Atriplex pentandra* (= *Atriplex arenaria*). Sparse *Ammophila breviligulata* is also a common associate. Diagnostic species are *Cakile edentula* ssp. *edentula*, *Salsola caroliniana*, *Atriplex pentandra*, and *Chamaesyce polygonifolia*. Ninety-five to ninety-nine percent of the substrate is typically unvegetated sand. *Amaranthus pumilus* is a globally rare species occurring in this community, but is thought to have been extirpated from a number of locations.

**COMMENTS:**

**Fire Island National Seashore**

This community occurs on beach area that is nesting habitat for piping plovers.

**Globally**

This community is common on maritime beaches of the Northeast, but is vulnerable to development and shifting wave action due to jetties. This community is the typical nesting habitat for piping plovers (federally threatened).

**States/Provinces:** CT:S?, DE:S?, MA:S?, MD:S?, ME:S?, NC:S?, NH:S?, NJ:S?, NY:S?, RI:S?, VA:S?

**OTHER NOTEWORTHY SPECIES:**

CONSERVATION RANK: G4G5  
DATABASE CODE: CEG004400  
MAP UNITS: FIIS plots 21, 47

**REFERENCES:**

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McDonnell 1979  
Metzler and Barrett 1996  
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